



SCIENTIFIC SUB-COMMITTEE

NS0006E1  
(+Annex)

-  
15th Session  
-

O. Eng.

Brussels, 6 December 1999.

AMENDMENT OF THE EXPLANATORY NOTES  
CONCERNING SUBHEADINGS 3920.43 AND 3920.49

(Item II.5 on Agenda)

Reference documents :

40.040 (RSC/13)	41.557 (RSC/16)
40.180 Annex C/16 (RSC/13 - Report)	41.580 Annex A/17 (RSC/16 - Report)
40.213 (SSC/11)	41.676 (SSC/13)
40.369 (SSC/11)	41.690 Annex A/15 (SSC/13 - Report)
40.460 Annex A/11 (SSC/11 - Report)	41.920 Annex A/7 (RSC/17 - Report)
40.256 (RSC/14)	42.500 Annex A/4 (RSC/18 - Report)
40.600 Annex D (HSC/18 - Report)	42.764 (SSC/14)
40.805 (SSC/12)	42.850 Annex A/11 (SSC/14 - Report)
40.870 Annex A/18 (SSC/12 - Report)	NR0004E1 (RSC/19)
40.788 (RSC/15)	NR0045E2 Annexes A/3 and D/12 (RSC/19 - Report)
40.920 Annex A/2 (RSC/15 - Report)	NC0016E1 Paras. 25 to 27 (HSC/23)
40.881 HSC/19	NC0017E1 Paras. 6 to 8 (HSC/23)
41.100 Annex E/1 (HSC/19 - Report)	NC0090E2 Annex F/1, paras. 4 to 6, and Annexes N/1 and O/1 (HSC/23 - Report)
41.461 (RSC/16)	

I. BACKGROUND

1. At its 14<sup>th</sup> Session the Scientific Sub-Committee submitted draft amendments to the Nomenclature and the Explanatory Notes to the Review Sub-Committee concerning subheadings 3920.43 and 3920.49. It was also agreed to re-examine the draft texts of a new Subheading Explanatory Note and appropriate test methods for distinguishing products based on the new criteria of plasticiser content at the next SSC Session, subject to the approval of the draft amendments to the Nomenclature by the Review Sub-Committee and the Harmonized System Committee. Administrations were requested to submit their comments on the draft text of the new Subheading Explanatory Note and appropriate test methods to the Secretariat, as soon as possible.

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2. The proposed amendments were subsequently approved by the Review Sub-Committee and finally adopted by the Harmonized System Committee at its 23<sup>rd</sup> Session.

## II. SECRETARIAT COMMENTS

3. Delegates are requested to refer to Annexes N/1 and O/1 to Doc. NC0090E2 (HSC/23 – Report) for the legal text and Explanatory Note amendments adopted under the Article 16 procedure.
4. The draft text of the new Subheading Explanatory Note to subheadings 3920.43 and 3920.49, retained by the Sub-Committee in square brackets for further study, is reproduced in the Annex to this document.
5. By the time of preparation of this document, the Secretariat had not received any comments from administrations on (i) the draft text of the new Subheading Explanatory Note nor (ii) appropriate test methods for distinguishing products on the basis of the 6% plasticiser content criterion.
6. Concerning the question of whether secondary plasticisers could be used alone (see the first line of the third paragraph of draft text of the Subheading Explanatory Note), the Secretariat found the following information in "Ullmann's Encyclopedia of Industrial Chemistry", Fifth Edition, Volume A20, pages 440 and 443 :

“...*Primary plasticizers* lower the glass transition temperature  $T_g$  and increase the elongation and softness of the polymer. *Secondary plasticizers*, when added to the polymer alone, do not bring about such changes and may also have limited compatibility with the polymer. However, when added to the polymer in the presence of a primary plasticizer, secondary plasticizers enhance the plasticizing performance of the primary plasticizer.”

“*Secondary plasticizers* (also referred to as extenders) continue to play a major role in flexible PVC technology. They do not have the same mode of softening action as a primary plasticizer but do impart softening behavior when used in combination with a primary plasticizer. In some very hard PVC formulations, however, a secondary plasticizer alone may be of use. The major secondary plasticizers are chlorinated hydrocarbons...”
7. The foregoing information suggests that, within the meaning to be established by the new Subheading Explanatory Note, secondary plasticisers are never used alone as plasticisers. Therefore, it would appear to be appropriate to delete the term “seldom” and to remove the square brackets around the term “never”.
8. As regards the appropriate test methods for distinguishing products based on the 6 % criterion, several delegates at the 14<sup>th</sup> Session had expressed concerns that, if this criterion were adopted, they could foresee potential problems with regard to the analysis of the composition of plasticisers in the products, since there were no officially adopted test methods for the quantitative analysis of primary and secondary plasticisers in PVC products. In this context, it was noted that the standard analysis method ASTM D 3421 - 75 (Extraction and Analysis of Plasticizer Mixtures from Vinyl Chloride Plastics) could be useful, though this method was applied for certain primary plasticisers only.

9. In this connection, the Secretariat wonders whether ASTM D 2124 - 70 (Standard Method for Components in Poly(Vinyl Chloride) Compounds Using an Infrared Spectrophotometric Technique) could also be used. The parts of this method concerning the "Scope" and "Infrared Analysis of Extracted Plasticizers" state, respectively, that :
- (a) "...PVC formulations are too varied to be covered adequately by a single method. Using the following method many compounds may be separated into resins, plasticizers, stabilizers, and fillers. A number of componenets can be quantitatively measured. Many more can be identified and their concentrations can be estimated..."
  - (b) "...most plasticizers for PVC compounds are liquid at room temperature. A few secondary plasticizers may be solid but would be suspended or dissolved in primary plasticizers..."
10. The Sub-Committee is requested to give its views in this regard.

### III. CONCLUSION

11. Taking the Secretariat's comments into account, the Sub-Committee is invited to examine the draft amendments set out in the Annex to this document. In this connection, the Sub-Committee is requested to express its views as to whether it agrees with the Secretariat that :
- (a) Secondary plasticisers are never used alone as plasticisers within the meaning of the draft Subheading Explanatory Note; and
  - (b) ASTM D 2124 – 70 method could also be used for testing the plasticiser content of the products of the new subheadings 3920.43 and 3920.49.

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Annexe au Doc. NS0006B1  
Annex to

(SCS/15/janv. 2000)  
(SSC/15/Jan. 2000)

ANNEXE

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MODIFICATION DES NOTES EXPLICATIVES  
CONCERNANT LES N°S 3920.43 AND 3920.49  
(Point II.5 de l'ordre du jour)

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ANNEX

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AMENDMENT OF THE EXPLANATORY NOTES  
CONCERNING SUBHEADINGS 3920.43 AND 3920.49  
(Item II.5 on Agenda)

PROCEDURE DE L'ARTICLE 16  
MODIFICATION DES NOTES EXPLICATIVES

CHAPITRE 39.

Page 617. N° 39.20.

Libellé.

Ajouter "(+)" à la fin du libellé.

Page 619. N° 39.20. Nouvelle Note explicative de sous-position.

Après le dernier paragraphe, insérer la nouvelle Note explicative de sous-positions ci-après :

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°            °

**Note explicative de sous-position**  
**N°s 3920.43 et 3920.49**

On distingue les produits de ces sous-positions en fonction de leur teneur en plastifiants. A cet effet, les plastifiants primaires et les plastifiants secondaires doivent être pris en compte ensemble (voir la Note 2 de sous-position du présent chapitre).

Les plastifiants primaires sont des substances peu volatiles qui, lorsqu'elles sont ajoutées à un polymère, le rendent plus souple et plus facile à travailler (esters phtaliques, adipiques, trimellitiques, phosphoriques, sébaciques et azélaïques, par exemple).

Les plastifiants secondaires, également connus sous le nom d'allonge, [sont rarement] [ne sont jamais] utilisés seuls en tant que plastifiants. Combinés à des plastifiants primaires, l'action plastifiante primaire est modifiée ou renforcée. Ils agissent également comme ignifugeants (paraffines chlorées, par exemple) ou comme lubrifiants (huile de lin époxydique, par exemple)."]

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ARTICLE 16 PROCEDURE  
AMENDMENTS TO THE EXPLANATORY NOTES

CHAPTER 39.

Page 617. Heading 39.20.

Heading Text.

Add "(+)" at the end of the heading text.

Page 619. Heading 39.20. New Subheading Explanatory Note.

After the last paragraph, insert the following New Subheading Explanatory Note :

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◦  
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**Subheading Explanatory Note**  
**Subheadings 3920.43 and 3920.49**

Products of these subheadings are distinguished on the basis of their content of plasticisers. For this purpose, primary plasticisers and secondary plasticisers should be taken together (see subheading Note 2 to this Chapter).

Primary plasticisers are low volatile materials which, when added to a polymer, cause an increase in its flexibility and workability (e.g., phthalate esters, adipate esters, trimellitate esters, phosphate esters, sebacate esters, azelate esters).

Secondary plasticisers also known as extenders, are [seldom] [never] used alone as plasticisers. When present in combination with primary plasticisers, the primary plasticising action will be modified or enhanced. Secondary plasticisers also act as fire retardants, (e.g., chlorinated paraffins) or lubricants (e.g., epoxidised linseed oil)."]

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